

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference NIS-1038-PCT	FOR FURTHER ACTION see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. PCT/JP2004/000965	International filing date (day/month/year) 30/01/2004	(Earliest) Priority Date (day/month/year) 20/02/2003
Applicant NISSAN MOTOR CO., LTD.		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 4 sheets.

It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, see Box No. I.

2. Certain claims were found unsearchable (See Box II).

3. Unity of invention is lacking (see Box III).

4. With regard to the title,

the text is approved as submitted by the applicant.
 the text has been established by this Authority to read as follows:

5. With regard to the abstract,

the text is approved as submitted by the applicant.
 the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regards to the drawings,

a. the figure of the drawings to be published with the abstract is Figure No. 1

as suggested by the applicant.
 as selected by this Authority, because the applicant failed to suggest a figure.
 as selected by this Authority, because this figure better characterizes the invention.

b. none of the figures is to be published with the abstract.

INTERNATIONAL SEARCH REPORT

International Application No

PCT/JP2004/000965

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 H01M8/04

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 H01M

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0 741 428 A (FINMECCANICA SPA) 6 November 1996 (1996-11-06) column 4 figure 1 -----	1-11
E	WO 2004/049489 A (NISSAN MOTOR ; KAMIHARA TETSUYA (JP)) 10 June 2004 (2004-06-10) page 1, line 27 - page 2, line 6 page 7, lines 21-25 page 8, lines 1-5 page 9, line 9 - page 13, line 12 page 18, column 26 - page 19, column 2 figure 7 ----- -/-	1-11,13

 Further documents are listed in the continuation of box C. Patent family members are listed in annex.

* Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority, claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

T later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed Invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed Invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

& document member of the same patent family

Date of the actual completion of the International search

Date of mailing of the international search report

8 December 2004

21/12/2004

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INTERNATIONAL SEARCH REPORT

International Application No
PCT/JP2004/000965

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
E	WO 2004/051780 A (NISSAN MOTOR ; KAMIHARA TETSUYA (JP)) 17 June 2004 (2004-06-17) page 1, line 21 - page 2, line 5 page 5, lines 1-3 page 7, line 25 - page 8, line 20 page 10, line 18 - page 11, line 5 figure 8 -----	1-11,13
A	US 2002/022167 A1 (HERRON THOMAS G) 21 February 2002 (2002-02-21) paragraphs '0020! - '0025! -----	1-14
A	FR 2 816 761 A (AIR LIQUIDE) 17 May 2002 (2002-05-17) page 1, lines 8-14 figures 1,4 -----	1-11
A,P	EP 1 339 125 A (NISSAN MOTOR) 27 August 2003 (2003-08-27) paragraphs '0004!, '0005!, '0007!, '0035!, '0049!, '0096! - '0098! figure 9 -----	1-11
A,P	WO 03/096460 A (NISSAN MOTOR ; KAMIHARA TETSUYA (JP); TAKAHASHI NOBUTAKA (JP)) 20 November 2003 (2003-11-20) figures 1,3,5,9,13,15 -----	1-14
A,P	EP 1 296 402 A (BALLARD POWER SYSTEMS) 26 March 2003 (2003-03-26) paragraphs '0012!, '0013!, '0017!, '0018! figure 1 -----	1-11

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/JP2004/000965

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
EP 0741428	A	06-11-1996	EP CA JP US	0741428 A1 2171811 A1 8315840 A 5605770 A	06-11-1996 05-11-1996 29-11-1996 25-02-1997
WO 2004049489	A	10-06-2004	JP WO	2004179000 A 2004049489 A2	24-06-2004 10-06-2004
WO 2004051780	A	17-06-2004	JP WO	2004185974 A 2004051780 A2	02-07-2004 17-06-2004
US 2002022167	A1	21-02-2002	US AU CA EP WO	6242120 B1 7984500 A 2374361 C 1243047 A1 0126173 A1	05-06-2001 10-05-2001 12-11-2002 25-09-2002 12-04-2001
FR 2816761	A	17-05-2002	FR CA EP WO JP US	2816761 A1 2389559 A1 1338052 A1 0241426 A1 2004514260 T 2003054211 A1	17-05-2002 23-05-2002 27-08-2003 23-05-2002 13-05-2004 20-03-2003
EP 1339125	A	27-08-2003	JP EP US	2003243020 A 1339125 A2 2003157383 A1	29-08-2003 27-08-2003 21-08-2003
WO 03096460	A	20-11-2003	JP JP WO US	2003331888 A 2003331889 A 03096460 A1 2004241511 A1	21-11-2003 21-11-2003 20-11-2003 02-12-2004
EP 1296402	A	26-03-2003	EP CA US	1296402 A1 2405253 A1 2003064274 A1	26-03-2003 25-03-2003 03-04-2003